To: **CAHAN San Diego Participants**
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From: **Immunization Program, Public Health Services**

Second Measles Case in San Diego County

This health alert updates healthcare professionals about a second measles case in San Diego County in 2019. An update is also provided on outbreaks in the United States and other countries, with recommendations for providers and resource links.

Key Points

- A fully immunized adult who was exposed to a local measles case is the second with the illness in San Diego County in 2019. The recently confirmed case may have exposed others at three locations on dates and times listed below.
- Several measles outbreaks are ongoing in the United States with 1,203 cases reported in 2019, a record since the disease was eliminated in this country in 2000.
- All patients with fever and rash should be screened at the point of entry to a healthcare facility. Providers should immediately institute airborne precautions on patients suspected of measles to prevent healthcare associated exposures.
- Measles should be considered when individuals present with an acute febrile illness and maculopapular rash.
- **Providers should immediately report any suspect measles case to the County Immunization Program. Do not wait for laboratory confirmation**.
- Recommended vaccinations prior to international travel include one dose of MMR for infants from 6 to 12 months of age, and two doses at least 28 days apart for those over 12 months of age.

Situation

A fully immunized adult who was exposed to the first measles case in San Diego County was confirmed today to have measles.

The newly diagnosed measles case may have exposed others to measles at the following San Diego locations:

- **85˚ Bakery Café**, 3361 Rosecrans Street, on 8/15, 8/16, 8/17, and 8/18 from 6 a.m. to 4:30 p.m.;
- **Min Sok Chon Korean Restaurant**, 4620 Convoy Street, on 8/15 from 6:30 p.m. to 2:00 a.m.; and
- **Ralphs**, 3011 Alta View Drive, on 8/16 from 4:30 p.m. to 7:30 p.m.

The Centers for Disease Control and Prevention (CDC) has reported 1,203 confirmed measles cases in 30 states and the District of Columbia thus far in 2019. This is the greatest number of annual cases reported since measles was eliminated in the U.S. in 2000.

Outbreaks in the United States have been associated with international travelers who brought measles back from the Philippines, Ukraine, Israel, and other countries where epidemics are occurring. A current list of countries with travel notices due to measles may be found here. Four states (California, New York, Texas, Washington) have ongoing outbreaks, with details and case totals updated every Monday on the CDC measles outbreak website. The California Department of Public Health (CDPH) has reported 65 cases in the state to date in 2019. Case information is updated every Thursday at the CDPH measles website.

Background

Measles symptoms usually begin 10-12 days (up to 21 days) after exposure with a prodrome of fever as high as 105°F (40.5°C), malaise, cough, coryza, and conjunctivitis. Three to five days following onset of the prodrome, a maculopapular rash develops. Koplik spots (clustered white spots on the buccal mucosa at the first and second molars) may precede the rash and persist after rash onset. The rash usually begins around the ears and hairline and then spreads down to cover the face, trunk, arms, and legs.

The sequence of symptom presentation, vaccination and travel histories, and medication use are critical in distinguishing measles from other causes of maculopapular rash and fever. It is unlikely to be measles if there is no rash on the face, if there is no fever at rash onset, or if rash appears less than two days or greater than 7 days after symptom onset.

Clinicians who have never seen a measles case are encouraged to consult their institutional resources (e.g., experienced pediatricians, infectious disease physicians) to help evaluate patients with fever and rash. More information for providers may be found at the CDC measles website and the CDPH measles website, which contains a useful reference for clinical guidance.

Serologic testing for measles is often performed but may be challenging to interpret because of the frequency of both false negative and false positive results. Polymerase chain reaction (PCR) testing for measles is a sensitive and specific method to identify measles and is available at SDPHL. A throat swab is preferred over a nasopharyngeal swab for measles PCR testing and the specimen should be placed in viral transport media. A urine specimen of at least 50cc can also be tested for measles using PCR. Measles virus is sensitive to heat and desiccation and viability decreases when samples are not kept cold. Samples should be transported with cold packs as soon as possible following collection. If samples cannot be transported immediately, they can be held at 4°C for 72 hours before shipping.

Measles is highly infectious and is transmitted by airborne spread of respiratory droplets. Typically, measles patients are contagious from four days before to four days after rash onset. Suspect measles cases should not be allowed in patient waiting areas. They should be masked and placed immediately in an examination room, with the door closed. Patients with suspect measles should be seen at the end of the day and use a separate entrance, if possible. The examination room should not be used for at least two hours after the patient has left. Providers seeing patients in an office or clinic setting may consider options, such as having the patients call ahead when measles symptoms are present and arranging to

see suspect measles cases after all other patients have left the office, or assessing patients outside of the building to avoid having a potentially infectious patient enter the office.

Two doses of measles-containing vaccine (MMR or MMRV) are more than 99% effective in preventing measles. Measles vaccines have been available in the United States since 1963, and two doses have been recommended since 1989. The first dose is given at 12-15 months of age, with the second dose usually between ages 4-6 years. Before international travel, those between six and 12 months of age should receive one MMR dose and those over 12 months of age should receive two MMR doses at least 28 days apart. Doses given prior to 12 months of age do NOT count toward meeting the recommended two doses of MMR vaccine.

Recommendations for Providers

- **Consider measles in patients with an appropriate clinical presentation**, especially fever and maculopapular rash and recent travel to locations with known outbreaks or places with international visitors.
    - If a symptomatic patient reports attendance at a measles exposure location in San Diego County, consider measles as a potential etiology regardless of vaccination status.
    - An updated list of potential measles exposure locations in San Diego County is maintained at the County measles webpage.

- **Screen all patients with fever and rash at the point of entry to a healthcare facility.**
    - Immediately mask and isolate any patient suspected of having measles and move them to a negative pressure room, when available.
    - Follow CDPH guidance on healthcare facility infection control recommendations for suspect measles patients, found here.

- **DO NOT wait for laboratory confirmation before reporting a suspect case.**
    - Notify the County Immunization Program **immediately** about any suspect cases during office hours by calling (866) 358-2966 (press 5 at the prompt) Monday-Friday 8AM-5PM and (858) 565-5255 after hours and on weekends. This will facilitate time-sensitive public health actions and assistance with clinical decision making and laboratory testing.

- **DO NOT send potentially infectious suspect measles patients to a reference laboratory for specimen collection.**
    - Collect appropriate laboratory specimens in your office when possible.
    - If patients must be sent to another location for specimen collection, arrangements must be made for appropriate isolation precautions to be taken.
    - **For patients presenting ≤7 days of rash onset, PCR testing of a throat swab and urine through the SDPHL is recommended and preferred over serology**.
    - DO NOT send specimens directly to the SDPHL or to the CDPH laboratory without consulting the County Immunization Program.
    - More information about measles testing may be found here.

- **Ensure that patients are up to date with all immunizations, including MMR.**
  - Advisory Committee of Immunization Practices MMR guidelines may be found here.
  - International travelers should be counseled to check the CDC Travelers' Health website to determine what immunizations are recommended prior to travel.
  - All medical staff should have two documented doses of MMR or serologic evidence of measles immunity.

- **Provide post-exposure prophylaxis when indicated.** CDPH guidance (updated in May 2019) on measles post-exposure prophylaxis may be found here and details on immunoglobulin administration may be found here.

Thank you for your participation.

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